



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/582,151

06/08/2006

Alexander Solntsev

WUE-59

8838

7590

03/16/2011

Thomas J. Burger  
Woods Herron & Evans  
2700 Carew Tower  
441 Vine Street  
Cincinnati, OH 45202-2917

EXAMINER

CIRIC, LJILJANA V

ART UNIT

PAPER NUMBER

3785

MAIL DATE

DELIVERY MODE

03/16/2011

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/582,151	<b>Applicant(s)</b> SOLNTSEV ET AL.	
	<b>Examiner</b> Ljiljana (Lil) V. Ciric	<b>Art Unit</b> 3785	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 22 December 2010.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-9,11,13,14-17 is/are pending in the application.
- 4a) Of the above claim(s) none is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9,11 and 13-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 December 2010 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

Art Unit: 3785

## **DETAILED ACTION**

### **Response to Amendment**

1. This Office action is in response to the reply filed on December 22, 2010.
2. Claims 1 through 9, 11, 13, and 15 through 17 remain in the application, all as amended.

### **Response to Arguments**

3. In view of the amendment to the claims filed on December 22, 2010, applicant's arguments with respect to the previously cited rejection of claims 1, 11, 13, 15, and 17 as being anticipated by the Munoz et al. reference (previously made of record via IDS) have been fully considered and are persuasive. The rejection of claims 1, 11, 13, 15, and 17 as being anticipated by Munoz et al. under 35 U.S.C. 102(e) as cited in the previous Office action thus has been withdrawn.

However, applicant's remaining arguments filed on December 22, 2010 have been fully considered but they are generally not persuasive.

First of all, contrary to applicant's arguments, the amendments to the claims filed on December 22, 2010 have failed to obviate all rejections of the claims under 35 U.S.C. 112, second paragraph, as explained in additional detail below in the section corresponding thereto.

Also, applicant argues that because "Brutscher fails to provide cooling air flow to at least two devices", "Brutscher is deficient with respect to independent claim 1". However, as noted in greater detail below, Brutscher et al. indeed does disclose cooling (ram) air flow as being provided to at least two devices (i.e., heat exchangers PHX and SHX). Applicant is therefore respectfully reminded that (a) claims in a pending application are to be given their broadest reasonable interpretation in view of the original disclosure and that (b) the originally filed disclosure of the instant application describes the at least two devices to which cooling air is to be supplied as being heat exchangers. Thus, applicant's aforementioned argument is not found to be persuasive.

Art Unit: 3785

Furthermore, applicant argues that, while claim 1 also requires at least one shutter in the air distribution device, "Brutscher fails to disclose a shutter in any portion of the air conditioning system" and thus "fails to disclose every element of independent claims 1 and 17" as required. Again, it is respectfully noted that applicant's additional argument is not supported by the actual disclosure of Brutscher et al., because, as described in greater detail below, Brutscher et al. indeed does show at least one shutter (i.e., ram air inlet flap RAIA) disposed in the air distribution device of the cooling air supply system of an aircraft. Thus, again applicant's argument is not found to be persuasive.

Finally, in response to applicant's arguments against the references individually with regard to, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

#### **Election/Restrictions**

4. Following applicant's cancellation of previously withdrawn claims 12 and 14, no claims remain withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to the various nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on April 20, 2010.

#### **Drawings**

5. The replacement drawings were received on December 22, 2010. These drawings are hereby approved.

#### **Specification**

6. Receipt and entry of the amended abstract filed on December 22, 2010 is hereby acknowledged.

#### **Claim Objections**

7. Claims 1 through 9, 11, 13, 15, and 16 are objected to because of the following informalities: immediately following "for an aircraft", "and" [claim 1, line 1] should be deleted if "configured to"

Art Unit: 3785

immediately following the same is intended to refer back to the previously recited cooling air supply system; “ A cooling air supply system” [claim 2, line 1; claim 3, line 1; claim 4, line 1; claim 5, line 1; claim 6, line 1; claim 7, line 1; claim 8, line 1; claim 9, line 1; claim 11, line 1; claim 13, line 1; claim 15, line 1; claim 16, line 1] should be replaced with “The cooling air supply system”; and, the acronym “(NACA)” [claim 2, line 3] should be removed as redundant. Appropriate correction is required.

### **Claim Rejections - 35 USC § 112**

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Claims 1 through 9, 11, 13, 15, and 16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With regard to base claim 1 as amended, it is not clear whether the limitations “A cooling air supply system for an aircraft **and** configured to supply cooling air” are intended by applicant to recite that the cooling air system for an aircraft is configured to supply cooling air (in which case the newly added “and” should be deleted from the claim as extraneous) OR whether applicant intended to include additional limitations immediately preceding “configured to supply cooling air” but inadvertently left these additional limitations out of the claim. The metes and bounds of protection sought by claim 1 and all claims depending therefrom are therefore indefinite.

It is still not clear what is encompassed/excluded by the limitation “a National Advisory Committee for Aeronautics (NACA) air inlet” [claim 2, lines 2-3]. Trade names and similar nomenclature should generally be avoided in claims.

Claim 16 still contains idiomatic informalities (i.e., “by means of expelled air pipes” in line 3 of the claim) which render the claim indefinite with regard to the intended scope of protection sought.

### **Claim Rejections - 35 USC § 102**

Art Unit: 3785

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

11. As best can be understood in view of the indefiniteness of claims 1, 3 through 9, 11, 13, 15, and 16, claims 1, 3 through 9, 11, 13, and 15 through 17 are rejected under 35 U.S.C. 102(e) as being anticipated by Brutscher et al. (2003/177780 A1; filed July January 15, 2004; previously made of record via IDS).

Brutscher et al. discloses a cooling air supply system for an aircraft and an aircraft essentially as claimed, including, for example: plural devices within the aircraft requiring cooling air (i.e., air cooled heat exchangers PHX and SHX); a air inlet (i.e., a ram air inlet); and, at least one shutter (i.e., ram air inlet flap RAIA) disposed in an air distribution device and configured to throttle the distribution of air to the at least two devices requiring cooling air.

The reference thus reads on the claims.

**Claim Rejections - 35 USC § 103**

Art Unit: 3785

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. As best can be understood in view of the indefiniteness of the claims, claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Brutscher et al. (2003/177780 A1; filed July January 15, 2004; previously made of record via IDS) in view of Scherer et al. (previously made of record via IDS).

Brutscher et al. discloses a cooling air supply system for an aircraft essentially as claimed, as noted in greater detail above. Brutscher et al., however, fails to specifically disclose that the air inlet is a NACA air inlet as recited in claim 2 of the instant application. However, it is well-known in the art and taught by Scherer et al. that NACA air inlets are used on the outer skin of an aircraft to allow ambient air to be supplied into the aircraft. Thus, it would have been obvious to one skilled in the art at the time of invention to modify the cooling air supply system of either Brutscher et al. or Munoz et al. in order to specifically have the ambient air inlet be a NACA air inlet as taught by Scherer et al. in order to facilitate standardized manufacture thereof, for example.

### Conclusion

14. The additional prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

15. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH**

Art Unit: 3785

shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ljiljana (Lil) V. Ciric whose telephone number is 571-272-4909. The examiner works a flexible schedule, but can normally be reached weekdays between 10:30 a.m. and 6:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy J. Swann can be reached on 571-272-7075. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system.

Status information for published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>.

Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Ljiljana (Lil) V. Ciric/

Primary Examiner, Art Unit 3785